

What is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A device for severing an extraction line connected between a cargo load and an extraction parachute when the cargo load fails to eject from an aircraft, the device comprising:

a cutter spaced from and spring-biased in the direction of the extraction line;

a housing for the cutter;

means for mechanically restricting the cutter from engaging and severing the extraction line; and

means responsive to a radio signal from a transmitter on the aircraft for disabling the restricting means so that the cutter is released and severs the extraction line.

2. The device recited in claim 1 wherein the restricting means includes:

a pivotable trip lever positioned in the way of the cutter.

3. The device recited in claim 2 wherein the disabling means includes:

an activatable solenoid connected to the trip lever for pivoting the trip lever out of the way of the cutter.

4. The device recited in claim 3 wherein the disabling means includes:

a radio receiver in circuit with the solenoid and responsive to the radio signal for activating the solenoid.

5. The device recited in claim 4 wherein the disabling means includes:

a battery in circuit with the solenoid for powering the solenoid.

6. The device recited in claim 1 wherein the housing includes an upper plate and a lower plate, the lower plate being machined to form pockets for the cutter, restricting means and disabling means to be mounted in.
7. The device recited in claim 6 wherein the upper plate is machined to form mounting and guiding slots for the cutter.
8. The device recited in claim 7 wherein the housing includes a pair of identical outer plates having a plurality of weight-reducing holes.
9. The device recited in claim 8 wherein the housing includes a plurality of spacers for spacing the upper and lower plates.
10. The device recited in claim 9 wherein the housing includes means for clamping the outer plates and the spaced apart upper and lower plates together.
11. The device recited in claim 10 wherein the clamping means includes a plurality of bolts and nuts, the bolts passing through the spacers and the plates.
12. The device recited in claim 11 wherein the upper and lower plates are made from aluminum.
13. The device recited in claim 1 in combination with an extraction line connected between an extraction parachute and a cargo load.
14. A device for severing an extraction line connected between a cargo load and an extraction parachute when the cargo load fails to eject from an aircraft, the device comprising:
  - a cutter spaced from and spring-biased in the direction of the extraction line;
  - a pivotable trip lever positioned in the way of the cutter for mechanically restricting the cutter from engaging and severing the extraction line;

an activatable solenoid connected to the trip lever for pivoting the trip lever out of the way of the cutter so that the cutter is released and severs the extraction line;

a radio receiver in circuit with the solenoid and responsive to a radio signal from a transmitter on the aircraft for activating the solenoid;

a battery in circuit with the solenoid for powering the solenoid;

an aluminum upper plate and an aluminum lower plate, the lower plate being machined to form pockets for the cutter, restricting means and disabling means to be mounted in, and the upper plate being machined to form mounting and guiding slots for the cutter;

a pair of identical outer steel plates having a plurality of weight-reducing holes;

a plurality of spacers for spacing the upper and lower plates; and

a plurality of bolts and nuts for clamping the outer plates and the spaced apart upper and lower plates together, the bolts passing through the spacers and the plates.

15. The device recited in claim 14 in combination with an extraction line connected between an extraction parachute and a cargo load.

16. A method of severing an extraction line connected between an extraction parachute and a cargo load when the cargo load fails to eject from an aircraft, the method comprising the steps of:

spacing a cutter from the extraction line;

spring-biasing the cutter in the direction of the extraction line;

mechanically restricting the cutter with restricting means from engaging and severing the extraction line; and

disabling the restricting means in response to a radio signal from a transmitter on the aircraft so that the cutter is released and severs the extraction line.

17. The method recited in claim 16 wherein the restricting step includes:  
positioning a pivotable trip lever in the way of the cutter.
18. The method recited in claim 17 wherein the disabling step includes:  
transmitting a radio signal from a transmitter on the aircraft.
19. The method recited in claim 18 wherein the disabling step includes:  
pivoting the trip lever out of the way of the cutter.
20. The method recited in claim 19 wherein the disabling step includes:  
activating a solenoid connected to the trip lever.